AMENDMENTS TO THE CLAIMS:

Please replace the previous listing of claims with the following listing of claims.

Listing of Claims

1.   (Currently Amended)   A method for controlling output of a classification algorithm which classifies an occupant of a seat in a vehicle, comprising ~~the steps of~~:

initially classifying the occupant and outputting a current classification;

~~subsequently periodically re-classifying the occupant; and~~

~~enabling a change in the classification of the occupant only upon obtaining evidence of a new classification which is greater than evidence of the current classification~~

setting an initial threshold period of time relative to which changes in the current classification are made;

conducting multiple re-classifications of the occupant;

determining a substantially consecutive period of time that the occupant has been classified or re-classified as the current classification;

determining which of the consecutive period of time that the occupant has been classified or re-classified as the current re-classification or the initial threshold is less and setting whichever is less as a comparison threshold;

determining a substantially consecutive period of time that the occupant has been classified differently than the current classification; and

changing the current classification only when the consecutive period of time that the occupant has been classified differently than the current classification is greater than the comparison threshold.

2.   (Currently Amended)   The method of claim 1, wherein the ~~step of enabling a change in the classification of the occupant comprises the steps of: determining a~~ determination of the consecutive period of time that the ~~re-classification of the~~ occupant ~~is the same~~ has been classified or re-classified as the current classification ~~; detecting a change in classification and then determining a consecutive period of time that the re-classification of the occupant is the changed classification; and~~

~~when the period of time in which the classification is the changed classification is greater than the period of time when the classification is the output classification, or greater than a predetermined time period, outputting the changed classification~~ is made after each re-classification of the occupant when the re-classification of the occupant is the same as the current classification.

3.   (Canceled)

3

4. (Currently Amended) The method of claim 1, further comprising ~~the step of~~ conducting the initial classification of the occupant based on satisfaction of a condition.

5. (Currently Amended) The method of claim 1, further comprising ~~the step of~~ conducting the initial classification of the occupant based on detection of closure of a door.

6. (Currently Amended) The method of claim 1, further comprising ~~the steps of~~:
providing a sensor to detect closure of the door; and
conducting the initial classification of the occupant upon detection of closure of the door.

7. (Original) The method of claim 6, wherein the sensor is a door closure sensor.

8. (Currently Amended) The method of claim 1, further comprising ~~the steps of~~:
detecting an empty seat; and
conducting the initial classification of the occupant upon detection of an object in the seat after detection of an empty seat.

9. (Currently Amended) The method of claim 1, further comprising ~~the steps of~~:
providing a sensor to detect an empty seat; and
conducting the initial classification of the occupant upon detection of an object in the seat after detection of an empty seat by the sensor.

10. (Currently Amended) The method of claim 1, further comprising ~~the steps of~~:
detecting switching on of the vehicle ignition; and
conducting the initial classification of the occupant upon detection of an object in the seat after detection of the switching on of the vehicle ignition.

11. (Currently Amended) The method of claim 1, further comprising ~~the steps of~~:
providing a sensor to detect switching on of the vehicle ignition; and
conducting the initial classification of the occupant upon detection of an object in the seat after detection of the switching on of the vehicle ignition by the sensor.

4

12. (Original) The method of claim 1, wherein the classification of the occupant is performed using a trained neural network.

13. (Original) The method of claim 1, wherein the classification of the occupant is performed using a combination neural network.

14. (Original) The method of claim 1, wherein the classification of the occupant is performed using a modular neural network.

15. (Currently Amended) The method of claim 1, further comprising the step of obtaining data from sensors such that the classification of the occupant is performed using the data obtained from the sensors.

16. (Currently Amended) The method of claim 15, wherein the sensors include at least two different types of sensors each type being [[are]] selected from a group consisting of a weight sensor, a capacitance-based sensor, an electric field-based sensor, a radar or other electromagnetic wave-based sensor, a camera-based sensors including a 3D sensor, and an ultrasonic-based sensor.

17. (Currently Amended) The method of claim 1, further comprising the step of obtaining data from at least one camera such that the classification of the occupant is performed using the data obtained from the at least one camera.

18. (Currently Amended) The method of claim 1, further comprising the step of:
resetting the classification by classifying the occupant and outputting the classification upon detection of a condition selected from a group consisting of an empty seat, opening of a door, ignition of the vehicle, motion of the vehicle and absence of motion of the vehicle ; and then upon resetting of the classification, classifying the occupant and outputting the classification.

19. (Currently Amended) A method for controlling output of a classification algorithm which classifies an occupant of a seat, comprising the steps of:
initially classifying the occupant and outputting a current classification;
subsequently periodically re-classifying the occupant;

~~determining a consecutive period of time when the re-classification of the occupant is unchanged and different from the current classification; and~~

~~enabling a change in the classification of the occupant only upon when the consecutive period of time is greater than a threshold and then outputting the changed classification.~~

conducting multiple re-classifications of the occupant;

determining a substantially consecutive period of time that the occupant has been classified or re-classified as the current classification;

setting a threshold relative to which changes in the current classification can be made equal to the consecutive period of time that the occupant has been classified or re-classified as the current classification;

determining a substantially consecutive period of time that the occupant has been classified differently than the current classification;

changing the current classification of the occupant depending on analysis of the consecutive period of time that the occupant has been classified differently than the current classification relative to the threshold; and

adjusting the threshold as a function of the consecutive period of time that the occupant has been classified differently than the current classification.

20.   (Currently Amended)   The method of claim 19, further comprising ~~the step of~~ conducting the initial classification of the occupant based on satisfaction of a condition.

21.   (Currently Amended)   The method of claim 19, further comprising ~~the steps of~~:

detecting an empty seat; and

conducting the initial classification of the occupant upon detection of an object in the seat after detection of an empty seat.

22.   (Currently Amended)   The method of claim 19, further comprising ~~the steps of~~:

detecting switching on of the vehicle ignition; and

conducting the initial classification of the occupant upon detection of an object in the seat after detection of the switching on of the vehicle ignition.

23.   (Original)   The method of claim 19, wherein the classification of the occupant is performed using a trained neural network, a combination neural network or a modular neural network.

24. (Currently Amended) The method of claim 19, further comprising ~~the step of~~ obtaining data from sensors such that the classification of the occupant is performed using the data obtained from the sensors.

25. (Currently Amended) The method of claim 19, further comprising ~~the step of~~:

resetting the classification <u>by classifying the occupant and outputting the classification</u> upon detection of a condition selected from a group consisting of an empty seat, opening of a door, ignition of the vehicle, motion of the vehicle and absence of motion of the vehicle ~~; and then upon resetting of the classification classifying the occupant and outputting the classification~~.

26. (Currently Amended) A method for controlling output of a classification algorithm which classifies an occupant of a seat in a vehicle, comprising ~~the steps of~~:

initially classifying the occupant and outputting a current classification;

subsequently periodically re-classifying the occupant; and

enabling a change in the classification of the occupant upon satisfying pre-determined criteria; <u>and</u>

resetting the classification <u>by classifying the occupant and outputting the classification</u>, upon detection of a condition selected from a group consisting of ~~an empty seat, opening of a door, ignition of the vehicle,~~ motion of the vehicle and absence of motion of the vehicle ~~; and then upon resetting of the classification, classifying the occupant and outputting the classification~~.

27. (Currently Amended) The method of claim 26, wherein the step of enabling a change in the classification of the occupant comprises ~~the steps of~~:

determining a substantially consecutive period of time that the re-classification of the occupant is the same as the current classification;

detecting a change in classification and then determining a substantially consecutive period of time that the re-classification of the occupant is the changed classification; and

when the period of time in which the classification is the changed classification is greater than the period of time when the classification is the output classification, or greater than a predetermined time period, outputting the changed classification.

28. (Currently Amended) The method of claim 27, wherein the step of enabling a change in the classification of the occupant further comprises the steps of:

determining whether the period of time that the re-classification of the occupant is the same as the current classification is greater than a pre-determined time threshold and if so,

setting the period of time that the classification of the occupant is the same as the current classification to the pre-determined threshold.

29. (Currently Amended) The method of claim 26, further comprising the step of conducting the initial classification of the occupant based on satisfaction of a condition.

30. (Currently Amended) The method of claim 26, further comprising the steps of:

detecting an empty seat; and

conducting the initial classification of the occupant upon detection of an object in the seat after detection of an empty seat.

31. (Currently Amended) The method of claim 26, further comprising the steps of:

detecting switching on of the vehicle ignition; and

conducting the initial classification of the occupant upon detection of an object in the seat after detection of the switching on of the vehicle ignition.

32. (Original) The method of claim 26, wherein the classification of the occupant is performed using a trained neural network, a combination neural network or a modular neural network.

33. (Currently Amended) The method of claim 26, further comprising the step of obtaining data from sensors such that the classification of the occupant is performed using the data obtained from the sensors.

34. (Currently Amended) The method of claim [[26]] 30, wherein the condition is an empty seat, further comprising the step of: detecting the empty seat by means of a weight sensor arranged in connection with the seat.

35. (Currently Amended) The method of claim [[26]] 30, wherein the condition is an empty seat, further comprising the step of: detecting the empty seat by means of an electric field sensor.

36.   (Currently Amended)   The method of claim [[26]] 30, ~~wherein the condition is an empty seat,~~ further comprising ~~the step of:~~ detecting the empty seat by means of a wave-receiving sensor.

37-47. (Canceled)

48.   (New) The method of claim 1, further comprising resetting the classification by classifying the occupant and outputting the classification, upon detection of a condition selected from a group consisting of motion of the vehicle and absence of motion of the vehicle.

49.   (New) The method of claim 19, further comprising resetting the classification by classifying the occupant and outputting the classification upon detection of a condition selected from a group consisting of motion of the vehicle and absence of motion of the vehicle.

50.   (New) A method for controlling output of a classification algorithm which classifies an occupant of a seat in a vehicle, comprising:

initially classifying the occupant and outputting a current classification;

setting a threshold period of time relative to which changes in the current classification are made;

conducting multiple re-classifications of the occupant to obtain a tentative re-classification each time;

after each re-classification in which the tentative re-classification of the occupant is the same as the current classification,

determining a substantially consecutive period of time that the occupant has been classified or re-classified as the current classification; and

after each re-classification in which the tentative re-classification of the occupant is not the same as the current classification,

determining a substantially consecutive period of time that the occupant has been classified as the tentative re-classification, and

changing the current classification to the tentative re-classification of the occupant only when the consecutive period of time that the occupant has been classified as the tentative re-classification is greater than the lesser of the consecutive period of time that the occupant has been classified as the current classification or the threshold.

51. (New) The method of claim 50, wherein the determination of the consecutive period of time that the occupant has been classified or re-classified as the current classification is made after each re-classification of the occupant when the re-classification of the occupant is the same as the current classification.

52. (New) The method of claim 50, further comprising conducting the initial classification of the occupant based on satisfaction of a condition.

53. (New) The method of claim 50, wherein the classification of the occupant is performed using a trained neural network, a combination neural network or a modular neural network.

54. (New) The method of claim 50, further comprising obtaining data from sensors such that the classification of the occupant is performed using the data obtained from the sensors.

55. (New) The method of claim 55, wherein the sensors include at least two different types of sensors each type being selected from a group consisting of a weight sensor, a capacitance-based sensor, an electric field-based sensor, a radar or other electromagnetic wave-based sensor, a camera-based sensors including a 3D sensor, and an ultrasonic-based sensor.

56. (New) The method of claim 50, further comprising obtaining data from at least one camera such that the classification of the occupant is performed using the data obtained from the at least one camera.

57. (New) The method of claim 50, further comprising:

resetting the classification by classifying the occupant and outputting the classification upon detection of a condition selected from a group consisting of an empty seat, opening of a door, ignition of the vehicle, motion of the vehicle and absence of motion of the vehicle.

58. (New) A method for controlling output of a classification algorithm which classifies an occupant of a seat, comprising:

initially classifying the occupant and outputting a current classification;

conducting multiple re-classifications of the occupant to obtain a tentative re-classification each time;

after each re-classification in which the tentative re-classification of the occupant is the same as the current classification,

determining a substantially consecutive period of time that the occupant has been classified or re-classified as the current classification, and

setting a threshold relative to which changes in the current classification can be made equal to the consecutive period of time that the occupant has been classified or re-classified as the current classification;

after each re-classification in which the tentative re-classification of the occupant is not the same as the current classification,

determining a substantially consecutive period of time that the occupant has been classified as the tentative re-classification, and

changing the current classification of the occupant to the tentative re-classification depending on analysis of the consecutive period of time that the occupant has been classified as the tentative re-classification relative to the threshold; and

adjusting the threshold as a function of the consecutive period of time that the occupant has been classified as the tentative re-classification.

59.   (New) The method of claim 58, further comprising resetting the classification by classifying the occupant and outputting the classification upon detection of a condition selected from a group consisting of an empty seat, opening of a door, ignition of the vehicle, motion of the vehicle and absence of motion of the vehicle.

60.   (New) A method for controlling output of a classification algorithm which classifies an occupant of a seat in a vehicle, comprising:

arranging a bladder weight sensor in a bottom cushion of the seat;

obtaining data relating to the pressure exerted by the occupant on the bottom cushion of the seat from the bladder weight sensor;

initially classifying the occupant and outputting a current classification using the data from the bladder weight sensor;

subsequently periodically re-classifying the occupant using the data from the bladder weight sensor; and

enabling a change in the classification of the occupant only upon obtaining evidence of a new classification which is greater than evidence of the current classification.

11

61. (New) The method of claim 60, wherein the step of enabling a change in the classification of the occupant comprises determining a substantially consecutive period of time when the re-classification of the occupant is unchanged and different from the current classification; and enabling a change in the classification of the occupant only upon when the consecutive period of time is greater than a threshold and then outputting the changed classification.

62. (New) The method of claim 60, further comprising resetting the classification by classifying the occupant and outputting the classification, upon detection of an empty seat as detected by the bladder weight sensor.

63. (New) A method for controlling output of a classification algorithm which classifies an occupant of a seat in a vehicle, comprising:

arranging a spatial sensor to generate a field over a bottom cushion of the seat and in which the occupant is expected to be situated;

obtaining data about the occupant from the spatial sensor;

initially classifying the occupant and outputting a current classification using the data about the occupant from the spatial sensor;

subsequently periodically re-classifying the occupant using the data about the occupant from the spatial sensor; and

enabling a change in the classification of the occupant only upon obtaining evidence of a new classification which is greater than evidence of the current classification.

64. (New) The method of claim 63, wherein the spatial sensor is selected from a group consisting of a capacitance-based sensor, an electric field-based sensor, a radar or other electromagnetic wave-based sensor, and an ultrasonic-based sensor.

65. (New) The method of claim 63, wherein the step of enabling a change in the classification of the occupant comprises determining a substantially consecutive period of time when the re-classification of the occupant is unchanged and different from the current classification; and enabling a change in the classification of the occupant only upon when the consecutive period of time is greater than a threshold and then outputting the changed classification.

66.	(New) The method of claim 63, further comprising resetting the classification by classifying the occupant and outputting the classification, upon detection of an empty seat as detected by the spatial sensor.